

Amendments to the Specification:

Page 10, amend the paragraph beginning on line 10 to read as follows:

Fluid F_1 , in the form ~~OF~~of a liquid single-phase solution nearly free of by-products, is sent through lines 15 and 7 into a heat exchanger 8 where it is cooled to a suitable temperature compatible with operation of contactor reactor 1, 120°C for example. This temperature can be controlled by means of a regulator 9 connected to heat exchanger 8 by a line 10. Line 10 is for example connected to a valve 11 with which a line 12 intended for delivery of the coolant in the heat exchanger is equipped. The cooled solvent solution from heat exchanger 8 can be recycled to contactor reaction 1 through line 3.

Page 14, amend the paragraph beginning on line 8 to read as follows:

The solution is heated in heat exchanger 20 to a temperature ranging between 120 and 150°C in order to favour crystallization of the by-products in solution in the solvent and to solubilize the free sulfur droplets possibly present in the solvent. The solution is then passed through line 21 into filter 22 where the solid by-products settle on cartridge 23 whereas the cleaned solvent F_1 is extracted through line 15 in order to be recycled to the top of contactor reactor 1.